REMARKS

Applicants respectfully request entry of this response and reconsideration of the present application in view of the following remarks. Prior to this response, claims 19-36 were pending in the application, of which claims 19, 32, and 36 are independent. In the Office Action mailed June 27, 2007, claims 19-21 and 23-36 were rejected under 35 U.S.C. § 102(b). After this proposed response, claims 19-36 are pending in this application.

I. The Examiner's Rejection Under 35 U.S.C. §102(b)

The Examiner rejected claims 19-21 and 23-36 under 35 U.S.C. §102(b) as being anticipated by European Patent No. EP 1118887 A2 ("Sumitomo"). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987); MPEP 2131. However, because Sumitomo does not disclose each recitation of independent claims 19, 32, or 36, it does not anticipate the rejected claims.

Applicants' claim 19 recites "the distance Δ_Φ between the centers of any couple of adjacent microstructures being at least equal to about λ_p and not higher than about $1.5\lambda_p$, wherein λ_p is the spatial variation length of the electric field intensity in the microstructured region." Independent claims 32 and 36, as amended, include the same recitations. In their specification, Applicants teach that $\lambda_p = 2*(\rho_2-\rho_1)/(\ln(I_1/I_2))$. Spec. at 5. The third embodiment of Sumitomo discloses an optical fiber having a microstructured region in which the distance

between the centers of any couple of adjacent microstructures is 6.2 μm. The Examiner asserts that this embodiment of Sumitomo inherently discloses this recitation of claim 1 because "the claimed range is based upon a variable 'λ_p" having a broad, if not infinite range of possible numerical values." Applicants respectfully disagree with the Examiner's contention.

As detailed in the Declaration of Alfredo Gambirasio, submitted herewith and incorporated herein by reference, the third embodiment of Sumitomo does not disclose the distance Δ_Φ between the centers of any couple of adjacent microstructures being at least equal to about λ_p and not higher than about $1.5\lambda_p$. In discussing its third embodiment, Sumitomo discloses examples 4-6, 6a, and 6b. Sumitomo at ¶¶ 77-80, 88, 91, and 95. Based on the information about examples 4-6, 6a, and 6b disclosed in Sumitomo, the parameters necessary to calculate λ_p for each of those examples was calculated using the MIT Photonic-Bands (MPB) package (version 1.4.2), as set forth in the Gambirasio Declaration. Gambirasio Decl. at ¶¶ 12-13.[1]

For Sumitomo's example 4, λ_p was calculated as 2.8 μm. Thus, for example 4, $\Delta_\Phi/\lambda_p = 2.2$, meaning the distance Δ_Φ is $2.2\lambda_p$ in this example. Gambirasio Decl. at ¶¶ 9-10. In example 5, λ_p was calculated as 2.7 μm, meaning the distance Δ_Φ in this example is $2.3\lambda_p$. *Id.* In example 6, λ_p was

[1] The Gambirasio Declaration also details a second method of calculating the ratio of Δ_Φ to λ_p for Sumitomo's third embodiment. Gambirasio at ¶ 14-15. However, as described in the Gambirasio Declaration, this method is not as precise as calculations performed using the MPB software package due to its approximation of the electric field intensity in the inner region.

calculated as 2.4 μm, meaning the distance Δ_Φ in this example is $2.6\lambda_p$. *Id.* In example 6a, λ_p was calculated as 3.0 μm, meaning the distance Δ_Φ in this example is $2.1\lambda_p$. *Id.* Finally, in example 6b, λ_p was calculated as 3.3 μm, meaning the distance Δ_Φ in this example is $1.9\lambda_p$. *Id.* Thus, in none of the examples of Sumitomo's third embodiment is the distance Δ_Φ between the centers of any couple of adjacent microstructures at least equal to about λ_p and not higher than about $1.5\lambda_p$. In particular, Example 6b's value of $1.9\lambda_p$, the lowest value for the distance between any couple of adjacent microstructures disclosed for Sumitomo's third embodiment, is not "about $1.5\lambda_p$." Gambirasio Decl. at ¶ 11.

Accordingly, Sumitomo does not anticipate any of claims 19, 32, or 36, and Applicants respectfully request that the rejection of these claims be withdrawn. Further, because claims 20-21, 23-31, and 33-35 depend from one of claims 19, 32, and 36, Applicants request that the rejection of those claims be withdrawn, as well.

II. Conclusion

Applicants respectfully request that this Response under 37 C.F.R. § 1.116 be entered by the Examiner in response to the Examiner's Final Office Action to address aspects of the pending claims that are not found in the art cited by the Examiner. Applicants submit that the proposed Amendment does not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner. Therefore, this Response should allow for immediate action by the Examiner. *Id.* Moreover, Applicants submit that the entry of the

Response would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

In view of the foregoing remarks, Applicants submit that this claimed invention is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicants therefore request the entry of this Response, the Examiner's reconsideration of the application, and the timely allowance of the pending claims.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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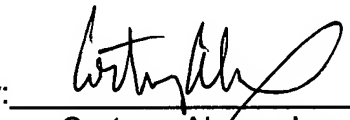
By: 

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